DEFENSE

Cooperative Research Projects

Agreement Between the
UNITED STATES OF AMERICA
and SINGAPORE

Signed at Singapore and Washington
July 20 and August 14, 2009

NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89—497, approved July 8, 1966 (80 Stat. 271; 1 U.S.C. 113)—

". . .the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof."

SINGAPORE

Defense: Cooperative Research Projects

Agreement signed at Singapore and Washington
July 20 and August 14, 2009;
Entered into force August 14, 2009.

AGREEMENT BETWEEN THE

DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA

AND THE

MINISTRY OF DEFENSE OF THE REPUBLIC OF SINGAPORE

RELATING TO COOPERATIVE RESEARCH PROJECTS FOR SURVEILLANCE OF MALARIA DRUG RESISTANCE

ARTICLE I
INTRODUCTION

The Department of Defense of the United States of America (U.S. DoD) and the Ministry of Defense of the Republic of Singapore (MINDEF), pursuant to the Strategic Framework Agreement Between the United States of America and the Republic of Singapore for a Closer Cooperation Partnership in Defense and Security, signed in Washington DC, on 12 July 2005, agree to establish Surveillance for Malaria Drug Resistance as a cooperative medical research project. The terms of the Strategic Framework Agreement between the United States of America and the Republic of Singapore for a Closer Cooperation Partnership in Defense and Security Agreement shall govern the execution of this Agreement.

ARTICLE II
DEFINITION OF ABBREVIATIONS

DMERI	Defence Medical and Environmental Research Institute, a research entity of DSO
DSO	DSO National Laboratories, Singapore
DSTA	Defence Science and Technology Agency, a statutory board of MINDEF, Singapore
MINDEF	Ministry of Defence, Singapore
HQMC	Headquarters Medical Corps, Singapore Armed Forces
SAF	Singapore Armed Forces
DoD	Department of Defense, USA
NAMRU-2	Naval Medical Research Unit Two, a research entity of DoD
NMRC	Navy Medical Research Center, a research entity of DoD
GEIS	Global Emerging Infectious Disease Surveillance and Responses, DoD
USN	United States Navy
RDT&E	Research, Development, Testing, and Evaluation Project

ARTICLE III
OBJECTIVES

The objective of this Agreement is to facilitate cooperation between the U. S. DoD and the MINDEF of the Republic of Singapore to conduct collaborative biomedical RDT&E projects on malaria drug resistance. The specific objectives of this Agreement are:

1. To establish a joint surveillance network to determine the species of malaria parasite and the drug resistance profile of imported infections in Singapore.

2. To conduct molecular marker testing on malaria parasites imported from different geographical regions to monitor the polymorphisms associated with antimalarial drug resistance.

3. To conduct in vitro drug susceptility testing on malaria parasites imported from different geographical regions to monitor intrinsic parasite drug sensitivity (ED50).

ARTICLE IV
SCOPE OF WORK

The following work shall be performed under this Agreement:

1. Phase 1 will be to identify and establish collaboration with hospitals and physicians in Singapore to participate in the malaria surveillance project and to establish laboratory capability, standard operating procedures (SOPs) and protocols, and monthly reporting formats.

2. Phase 2 will be to conduct training of laboratory personnel to perform laboratory assays according to laboratory SOP and to establish a laboratory proficiency programme with participating US DoD laboratories.

3. Phase 3 will be daily operations of the joint surveillance network and providing annual reports on the activities, performance and achievements of the joint surveillance network. **The collection of specimens for this project will be governed by Institutional Review Board (IRB) protocol approved by Singapore and reviewed by the U.S.**

ARTICLE V.
SHARING OF TASKS

The sharing of tasks shall be as follows:

The MINDEF agrees to provide the following:

1. **Review, submit and obtain IRB approval. Provide approval documentation to the U.S. for review.**

2. Collect clinical and epidemiological and specimen from patients with confirmed malaria diagnosis.

3. Provide laboratory personnel for training and performance of laboratory assays and procedures.

4. Participate in the laboratory proficiency program with participating US DoD laboratories.

The U.S. DoD agrees to provide the following:

1. **Review the IRB protocol in accordance with SECNAVINST 3900.39D.**

2. Provide standardized laboratory assays and protocols used by DoD laboratories for identification, molecular genotyping and in vitro drug susceptility testing for characterization of malaria parasites.

3. Provide laboratory personnel with hands-on training on the conduct and performance of designated laboratory assays and protocols.

4. Provide standardized antimalarial drugs and detection capability for performance of in vitro drug resistance testing using established fluorescent detection methods.

The MINDEF and the DoD agree to jointly provide the following:

1. Identity laboratory assays and protocols to support implementation of the objectives of this project and identify job functions for DMERI, DSTA, and NAMRU-2 personnel.

2. Assist in establishing laboratory capability at DMERI.

3. Preparation of reporting procedures and generation of annual reports on the activities, performance and achievements of the joint surveillance network.

ARTICLE VI
BREAKDOWN AND SCHEDULE OF TASKS

1. The project shall proceed according to the following concurrent phases and schedule:

2. Phase 1 — Duration

a. Establish project management responsibilities and timelines — 3 months

(1) Complete study proposal and establish collaboration with hospitals and clinics.

(2) Update and verify job functions for DMERI, NAMRU-2, and hospital investigators and staff.

(3) Develop IRB Protocol.

3. Phase II.

a. Establish laboratory support capabilities — 3 months

(1) Obtain IRB Approval and recruit subjects.

(2) Procure reagents and equipment.

(3) Establish laboratory protocols for blood collection, shipping and delivery to the laboratory, microscopy, molecular marker testing, and in vitro drug sensitivity tests.

(4) Conduct laboratory hands-on training of laboratory assays and analysis.

(5) Establish reporting procedures and laboratory proficiency programme.

3. Phase III — 30 months

a. Initiate **the study in accordance with the approved IRB** protocol and maintain laboratory operations and reporting procedures.

(1) Coordinate and execute collection of samples, laboratory activities and reporting, and participation in proficiency programme.

(2) Provide annual review reports.

4. The project is expected to be completed 31 months from the date of commencement 1.

ARTICLE VII
MANAGEMENT

1. This Agreement shall be directed and administered on behalf of the Parties by one Project Officer (PO) from each Party. The POs are:

US PO:	Dr. Gary T. Brice, LCDR, MSC, USN
Title/Position:	Head, Department of Immunology
Organization:	Naval Medical Research Unit No. 2
	Singapore Detachment, Office of Defense Cooperation
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Singapore PO:	Dr Eng Eong Ooi
Title/Position:	Programme Director
	Biological Defense Programme
Organization:	Defence Medical Environmental Research Institute
	DSO National Laboratories, Kent Ridge
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	Singapore 117510
	Tel: (+65) 6485-7238
	Fax: (+65) 6485-7262
	Email: oengeong@dso.org.sg

ARTICLE VIII
FINANCIAL PROVISIONS

Each Party will pay for its own expenses resulting from efforts undertaken pursuant to this Agreement.

ARTICLE IX
CLASSIFICATION

The existence of this Agreement and its contents is UNCLASSIFIED. No Classified Information shall be exchanged under this Agreement

ARTICLE X
PRINCIPAL ORGANIZATIONS INVOLVED

1. The United States of America: Naval Medical Research Unit No. 2, Singapore Detachment United States Navy

2. Republic of Singapore:

   a. Defence Medical and Environmental Research Institute, DSO National Laboratories

ARTICLE XI

ENTRY INTO FORCE, DURATION AND TERMINATION

1. This Agreement shall enter into force upon signature by the Agreement Management Agents, and shall remain in force for three years unless terminated by either Party. It may be extended by written agreement of the Parties.

2. IN WITNESS WHEREOF the undersigned, duly authorized by their respective Governments, have signed this Agreement.

Done in duplicate, this 14th day of August 2009.

For the U. S. MA	For Singapore MA
A. M. Robinson, Jr.	
Signature	Signature
A. M. ROBINSON, JR, VADM, MC, USN	TAN PENG YAM
Name	Name
Surgeon General of the Navy	Deputy Chief Executive (Operations) Defence Science & Technology Agency
Title	Title
14 August 2009	20 July 2009
Date	Date
United States of America	Republic of Singapore
Location	Location